# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:

Patent application of

Barry E. Barsky

Attorney Docket No.:

7782-11CI 1

Serial No.:

Not yet assigned

Group Art Unit:

Not yet assigned

Filed:

Herewith

Examiner:

For:

ELECTROLYTIC TILT SENSOR

HAVING A MENISCUS INHIBITOR

Not yet assigned

# INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. § 1.56 and in accordance with 37 C.F.R. §§ 1.97-1.98, the Applicants attache hereto a completed PTO Form 1449 (modified). The above-identified application is a continution-in-part application of parent application Serial No. 09/544,533 filed April 6, 2000. Pursuant to 37 C.F.R. 1.98(d), copies of references identified herein which were previously cited or submitted in the identified parent application are not being resubmitted. This Information Disclosure Statement is being submitted concurrently with the filing of the above-referenced application. Therefore, no certification, petition or fee is required.

#### **CERTIFICATE OF MAILING** UNDER 37 C.F.R. 1.10

EXPRESS MAIL Mailing Label Number:

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I hereby certify that this correspondence, along with any paper referred to as being attached or enclosed, and/or fee, is being deposited with the United States Postal Service, "EXPRESS MAIL - POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, on the date indicated above, and addressed to: Assistant Commissioner for Patents, Washington, D.C. 2023

Type or print name of person

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However, if a fee is due, please charge, or credit any overcharge to, Deposit Account No. 19-1135.

The following references are noted as being potentially relevant to the subject matter of the present application.

German reference 40 25 184 A1 to Geisel shows an acceleration and/or inclination sensor. The sensor has an envelope comprising a metal housing which forms a cathode. The housing has a cylindrical sidewall and an integrally-formed flat top. A gasketed disk made of a dielectric material closes the bottom of the housing. The housing and the disk define a chamber, which is partially filled with an electrolytic solution. Two sensing electrodes extend from outside the sensor, through the disk and into the chamber. The cathode is a common electrode. An electrical lead for the cathode is a pin attached to the underside of the sensor. Alternatively, the cathode lead is a tab attached to the top of the housing.

U.S. Pat. No. 3,290,786 to Parkin shows an electrolytic attitude sensing apparatus having four sensing electrodes and one common electrode. The sensing electrodes are arranged in a rhombic pattern that is concentrically located within a sealed, cylindrical housing. The common electrode is spaced equidistant from each of the sensing electrodes. Each electrode is mechanically coupled to the housing.

U.S. Pat. No. 5,428,902 to Cheah shows an inclinometer sensing circuit. The circuit includes a biaxial electrolytic inclinometer having five pin electrodes. Four of the electrodes are arranged in a square pattern. The fifth electrode (the common electrode) is located at the center of the square pattern.

U.S. Pat. No. 5,612,679 to Burgess shows an electrolytic tilt sensor. The tilt sensor comprises a glass cell, four sensing electrodes and one common electrode. The glass cell is generally cylindrical in shape and defines a chamber. The sensing electrodes are concentrically located within the glass cell in a square pattern. The common electrode is

located at the center of the square pattern. The electrodes are of the pin type and pass from outside the sensor, through the glass cell and into the chamber.

U.S. Pat. No. 5,630,280 to Crossan, Jr. shows a dual axis electrolytic tilt sensor. The sensor has a sphere-shaped metal enclosure that is a common electrode. Four sensing electrodes are disposed within the enclosure. The sensing electrodes pass through a glass insulating structure and terminate outside the enclosure as pins. The glass insulating structure supports the electrodes and seals the enclosure.

U.S. Pat. No. 4,497,118 to Byrum shows a motion and orientation sensor. The sensor comprises a chamber that is partially defined by a metal wall. An electrical lead passes from outside the chamber, through the metal wall and into the chamber. The electrical lead and the metal wall are opposite polarities. A gasket located between the metal wall and the lead electrically insulates the lead from the wall and seals the chamber.

The following references are deemed to be of a secondary interest or at best cumulative to the patents noted above.

# U.S. Patents

| 1,634,934 | 4,496,836 | 5,170,567 |
|-----------|-----------|-----------|
| 2,852,646 | 4,517,750 | 5,174,033 |
| 3,171,213 | 4,583,296 | 5,180,986 |
| 3,487,303 | 4,641,434 | 5,279,040 |
| 3,843,539 | 4,846,954 | 5,581,034 |
| 3,906,471 | 4,937,518 | 5,731,761 |
| 3,937,078 | 4,972,595 | 5,852,878 |
| 3,992,951 | 5,031,329 |           |
| 4,344,235 | 5,079,847 |           |
| 4,365,421 | 5,159,761 |           |
|           |           |           |

# Foreign References

| British  | 733,973      |
|----------|--------------|
| European | 0 117 226 A2 |
| European | 0 358 788 A1 |
| French   | 2 647 544    |
| German   | 36 08 274 C2 |

It is requested that the Examiner review the above-identified references and make them of record in the instant application as required by M.P.E.P. § 609. It is also requested that the Examiner initial the enclosed duplicate substitute form 1449 and return one copy to the Applicant's undersigned representative.

The references listed in this Information Disclosure Statement comprise the most pertinent prior art known to Applicant and his attorneys as of the date hereof. This Information Disclosure Statement should not be construed as a representation that the cited references are material or that no better art exists.

Respectfully submitted,

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Attorney for Applicant

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE  | NAME            | CLASS | SUBCLASS | FILING DATE (IF<br>APPROPRIATE) |
|---------------------|----|-----------------|-------|-----------------|-------|----------|---------------------------------|
|                     | ВА | 4,496,836       | 01/85 | Mikesell        | 250   | 231      |                                 |
|                     | BB | 4,497,118       | 02/85 | Byrum           | 33    | 366      |                                 |
|                     | ВС | 4,517,750       | 05/85 | Netzer          | 33    | 396      |                                 |
|                     | BD | 4,583,296       | 04/86 | Dell'Acqua      | 33    | 366      |                                 |
|                     | BE | 4,641,434       | 02/87 | Engler          | 33    | 366      |                                 |
|                     | BF | 4,846,954       | 07/89 | Ryan et al.     | 33    | 366      |                                 |
|                     | BG | 4,937,518       | 06/90 | Donati et al.   | 324   | 716      |                                 |
|                     | ВН | 4,972,595       | 11/90 | Shimmura et al. | 33    | 366      |                                 |
|                     | ΒI | 5,031,329       | 07/91 | Smallidge       | 33    | 366      |                                 |
|                     | ВЈ | 5,079,847       | 01/92 | Swartz et al.   | 33    | 366      |                                 |
|                     | ВК | 5,159,761       | 11/92 | Cagan et al.    | 33    | 366      |                                 |

# FOREIGN PATENT DOCUMENTS

|    | DOCUMENT NO. | DATE  | COUNTRY | CLASS | SUBCLASS | TRANSLATION<br>YES | NO |
|----|--------------|-------|---------|-------|----------|--------------------|----|
| BL | 40 25 184 A1 | 02/92 | Germany |       |          |                    | Х  |
| BM |              |       |         |       |          |                    |    |
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|---------------------|----|-----------------|-------|------------------------|-------|----------|------------------------------------|
|                     | CA | 5,170,567       | 12/92 | Davis et al.           | 33    | 366      |                                    |
|                     | СВ | 5,174,033       | 12/92 | Rider                  | 333   | 366      |                                    |
|                     | СС | 5,180,986       | 01/93 | Swartz et al.          | 324   | 660      |                                    |
|                     | CD | 5,279,040       | 01/94 | Kippelt <i>et al</i> . | 33    | 366      |                                    |
|                     | CE | 5,428,902       | 07/95 | Cheah                  | 33    | 366      |                                    |
|                     | CF | 5,581,034       | 12/96 | Dao et al.             | 73    | 514.09   |                                    |
|                     | CG | 5,612,679       | 03/97 | Burgess                | 340   | 689      |                                    |
|                     | СН | 5,630,280       | 05/97 | Crossan, Jr.           | 33    | 366      |                                    |
|                     | CI | 5,731,761       | 03/98 | Sychra                 | 340   | 689      |                                    |
|                     | CJ | 5,852,878       | 12/98 | Seipp, Jr., et al.     | 33    | 366      |                                    |
|                     | СК |                 |       |                        |       |          |                                    |

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|---|----|--------------|------|---------|-------|----------|--------------------|----|
|   | CL |              |      |         |       |          |                    |    |
| _ | СМ |              |      |         |       |          |                    |    |
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|---------------------|----|-----------------|-------|-----------------|-------|----------|------------------------------|
|                     | AA | 1,634,934       | 07/27 | Donaldson       |       |          |                              |
|                     | AB | 2,852,646       | 09/58 | Broadley, Jr.   | 201   | 57       |                              |
|                     | AC | 3,171,213       | 03/65 | Swarts et al.   | 36    | 206      |                              |
|                     | AD | 3,290,786       | 12/66 | Parkin          | 33    | 206      |                              |
|                     | AE | 3,487,303       | 12/69 | Remington       | 324   | 65       |                              |
|                     | AF | 3,843,539       | 10/74 | Willing et al.  | 252   | 62.2     |                              |
|                     | AG | 3,906,471       | 09/75 | Shawhan         | 340   | 200      |                              |
|                     | АН | 3,937,078       | 02/76 | Williams        | 73    | 189      |                              |
|                     | AI | 3,992,951       | 11/76 | Erspamer et al. | 73    | 497      |                              |
|                     | AJ | 4,344,235       | 08/82 | Flanders        | 33    | 366      |                              |
|                     | AK | 4,365,421       | 12/82 | Byrum           | 33    | 366      |                              |

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|        | DOCUMENT NO. | DATE  | COUNTRY        | CLASS | SUBCLASS | TRANSLATION<br>YES | NO |
|--------|--------------|-------|----------------|-------|----------|--------------------|----|
| AL     | 733,973      | 07/55 | United Kingdom |       |          |                    |    |
| AM     | 0 117 226 A2 | 08/84 | European       |       |          |                    |    |
| <br>AN | 0 358 788 A1 | 03/90 | European       |       |          |                    |    |
| <br>AO | 2 647 544    | 11/90 | France         |       |          |                    | Х  |
| AP     | 3608274 C2   | 6/88  | Germany        |       |          |                    | Х  |

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